

BANGALORE UNIVERSITY

DEPARTMENT OF CIVIL ENGINEERING

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JNANA BHARATHI
BANGALORE - 560 056

BUB/CTE/2014-15/

Date: 09-03-2015

1. TESTING OF FINE AGGREGATES:

Sub: Testing of Fine Aggregates.

{Project*: Improvements of road in low lying area of Bhadrappa layout Maruthi Nagara at 9th main and cross road and 10th cross road in ward No. 08.}

Ref.: Letter No. BUB/Testing/2014-15, dated 06-03-2015

Sample supplied to lab by : Assistant Executive Engineer
Kodigehalli Sub-Division
BBMP, Bangalore.

Name of the Contractor/ Agency*: M/s KRIDL, Bangalore.

TABLE - 1.1 : SIEVE ANALYSIS:

IS Sieve Size, mm	Percentage Passing	Specification as Per IS: 383-1970(Reaffirmed 2002)			Remarks
		Zone-I	Zone-II	Zone -III	
04.75	97.30	90-100	90-100	90-100	The Sample Conforms to Grading Zone-II
02.36	79.60	60-95	75-100	85-100	
01.18	66.10	30-70	55-90	75-100	
600. mic	47.60	15-34	35-59	60-79	
300.mic	21.90	5-20	8-30	12-40	
150.mic	3.05	0-10	0-10	0-10	

TABLE 1.2 ;

Sl No	Test Conducted	Sample	Results	Requirements as Per IS. Specification IS :383-1970 (Reaffirmed 2002)
1	Silt Content	001	1.54 %	Not more than 8%
2.	Specific Gravity	----	2.61	-----

*As furnished by Client.

The Results relate only to the items tested.

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BUB/CTE/2014-15/

Date: 16-03-2015

1. TEST REPORT ON CEMENT:

Sub: Testing of 53 Grade Cement Sample (IS 12269-1987).

{Project*: Improvements of road in low lying area of Bhadrappa layout Maruthi Nagara at 9th main and cross road and 10th cross road in ward No. 08.}

Ref.: Letter No. BUB/Testing/2014-15, dated 06-03-2015

Sample supplied to lab by : Assistant Executive Engineer
Kodigehalli Sub-Division
BBMP, Bangalore.

Name of the Contractor/ Agency*: M/s KRIDL, Bangalore.

PHYSICAL TESTS ON CEMENT

Brand* : Birla Super Grade *: 53
Type * : OPC
Date : 07-03-2015 to 14-03-2015

SL No	Name of Test	Results	Requirements as per IS 12269-1987
		Cement Sample	
1	Initial setting time	138 min	Shall not be less than 30 min
2	Final setting time	234 min	Shall not be more than 600 min
3	Fineness (by dry sieving on IS 90 micron sieve)	1.86 %	Not to exceed 10.0%
4	Soundness test (by Le-Chatelier's method)	1.58 mm	Shall not be more than 10 mm
5	Compressive strength		
	c) 3 days (average of three results)	31.07 N/ Sq mm	Shall not be less than 27 N/Sqmm
	d) 7 days (average of three results)	41.22 N/Sq mm	Shall not be less than 37N/Sqmm

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BUB/CTE/2014-15/

Date: 09-03-2015

1. TESTING OF COARSE AGGREGATES (40 mm):

Sub: Testing of Coarse Aggregates.

{Project*: Improvements of road in low lying area of Bhadrappa layout Maruthi Nagara at 9th main and cross road and 10th cross road in ward No. 08.}

Ref.: Letter No. BUB/Testing/2014-15, dated 06-03-2015

Sample supplied to lab by : Assistant Executive Engineer
Kodigehalli Sub-Division
BBMP, Bangalore.

Name of the Contractor/ Agency*: M/s KRIDL, Bangalore.

Table - 1.1 : SIEVE ANALYSIS :

IS Sieve Size, mm	Percentage passing 40 mm Sample	Requirements as per IS 383-1970 (Reaffirmed on 2002) % Passing	
		Single size	Graded
40mm	99.00	85-100	95 - 100
20mm	57.30	0 -20	30- 70
10mm	24.60	0 -5	10- 35
4.75mm	Nil	-----	0 - 5

TABLE 12 :

SL No	Test conducted	Sample No	Results	Requirements as per IS:383-1970 & Test Conforms to IS 2386(Part I to IV) – 1963 (Reaffirmed on 2002)
1.	Flakiness Index	As above	14.58 %	Not to exceed 25 %
2.	Crushing value	-----	24.28 %	Not to exceed 45 % for concrete other than for wearing surfaces and 30% for concrete for wearing surfaces

*As furnished by Client.

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BUB/CTE/2015-16/

DATE: 17-04-2015

1. TEST REPORT ON CEMENT CONCRETE CUBES :

Sub: Testing of Concrete Cubes (28 days Compressive Strength)

{Project*: Improvements of road in low lying area of Bhadrappa layout Maruthi Nagara at
9th main and cross road and 10th cross road in ward No. 08.}

Ref.: Letter No. BUB/Testing/2014-15, dated 17-04-2015

Sample supplied to lab by : Assistant Executive Engineer
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Name of the Contractor/ Agency*: M/s KRIDL, Bangalore.

RESULTS OF COMPRESSIVE STRENGTH ON CEMENT CONCRETE

CUBE SPECIMENS

Dimensions of Specimen : 150 X 150 X 150mm
Grade of Concrete* : M₂₀

TABLE 1.1 :

AE-8
1

Sl No	Location/ Identification*	Date of Casting*	Date of Testing	Age in Days	C/S Area in Mm ²	Maximum Load in K.N	Compressive Strength (N/ mm ²)	Avg. Value
1	001	20-03-15	17-04-15	28	22500	535	23.77	23.55
	002	"	"	"	"	525	23.33	
	003	"	"	"	"	530	23.55	

*As Furnished by Client.

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BUB/CTE/2014-15/

Date: 09-03-2015

1. TEST REPORT ON REINFORCEMENT STEEL :

Sub: Testing of Reinforcement Steel of diameter 10mm.

{Project*: Improvements of road in low lying area of Bhadrappa layout Maruthi Nagara at 9th main and cross road and 10th cross road in ward No. 08.}

Ref.: Letter No. BUB/Testing/2014-15, dated 06-03-2015

Sample supplied to lab by : Assistant Executive Engineer
Kodigehalli Sub-Division
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Name of the Contractor/ Agency*: M/s KRIDL, Bangalore.

TABLE - 1

SL No	Details	For 10 mm	
		Test Results	Req as per IS 1786-2008
01	Observed diameter of bar	10.0 mm	10.0 mm
02	Observed Wt/m Length Kg/m	0.623	0.567
03	Proof stress/Yield stress, fy, N/mm ²	555.0	500.0
04	Bend/ Re bend Test	Ok	---
05	Percentage of Elongation, %	21.90	12.00
06	Ultimate Tensile Strength N/mm ²	637.0	545.0

*As furnished by Client.

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BUB/CTE/2015-16/

DATE: 22-04-2015

1. TEST REPORT ON CEMENT CONCRETE CUBES :

Sub: Testing of Concrete Cubes (28 days Compressive Strength)

{Project*: Improvements of road in low lying area of Bhadrappa layout Maruthi Nagara at 9th main and cross road and 10th cross road in ward No. 08.}

Ref.: Letter No. BUB/Testing/2014-15, dated 20-04-2015

Sample supplied to lab by : Assistant Executive Engineer
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Name of the Contractor/ Agency*: M/s KRIDL, Bangalore.

RESULTS OF COMPRESSIVE STRENGTH ON CEMENT CONCRETE

CUBE SPECIMENS

Dimensions of Specimen : 150 X 150 X 150mm
 Grade of Concrete* : M₂₀

TABLE 1.1 :

AE-3 ✓

Sl No	Location/ Identification*	Date of Casting*	Date of Testing	Age in Days	C/S Area in Mm ²	Maximum Load in K.N	Compressive Strength (N/ mm ²)	Avg. Value
1	001	23-03-15	20-04-15	28	22500	515	22.88	23.25
	002	"	"	"	"	530	23.55	
	003	"	"	"	"	525	23.33	

*As Furnished by Client.

The Results relate only to the items tested.

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